

REMARKS

Claim 1-28 are pending in the application. In the Office Action of December 4, 2003, the Examiner made the following disposition:

- A.) Commented that formal drawings will be required when the application is allowed.
- B.) Rejected claims 1-28 under 35 U.S.C. §102(e) as being allegedly anticipated by *Hanratty* (U.S. Patent No. 5,990,897).

Applicant respectfully traverses the rejection and addresses the Examiner's disposition below.

- A.) Comment that formal drawings will be required when the application is allowed:
Applicant respectfully acknowledges the Examiner's comment regarding the drawings. Formal drawings will be submitted separately herefrom.

- B.) Rejection of claims 1-28 under 35 U.S.C. §102(e) as being allegedly anticipated by *Hanratty* (U.S. Patent No. 5,990,897):

Applicant respectfully disagrees with the rejection.

Applicant's claims 1, 9, 10, 18, 19, 27 and 28 have each been amended to clarify that the objects are rotated around a common rotational axis to form the three-dimensional rotational image having a maximum rotational angle around the common rotational axis with each object in a first of the layers having a minimum rotational angle and objects in layers other than the first layer having a rotational angle greater than the minimum rotational angle and less than or equal to the maximum rotational angle.

Claims 4, 13 and 22 have been amended to correct informalities.

Claims 3, 12 and 21 have been canceled.

Independent claims 1, 9, 10, 18, 19, 27 and 28, each as amended, claim methods, systems, or articles of manufacture wherein objects of a two-dimensional (2-D) image are assigned to one of a plurality of sequential layers that correspond to visually depicted depths of the objects in the two-dimensional image. The objects of each layer are rotated around a common rotational axis, the common rotational axis being the common rotational axis for the plurality of layers, to form a three-dimensional (3-D) rotational image. The three-dimensional rotational image has a maximum rotational angle around the common rotational axis with each object in a first of the layers having a minimum rotational angle and objects in layers other than the first layer having a rotational angle greater than the minimum rotational angle and less than or equal to the maximum rotational angle. The three-dimensional rotational image is displayed.

Referring to Applicant's Figures 4A and 4B as an illustrative example, objects (401-404) in a two-dimensional image 410 are each assigned to one of a plurality of layers. As shown in Figure 4B, the objects (401-404) are each rotated around a common rotational axis to form the three-dimensional rotational image 450.

This is clearly unlike *Hanratty*, which fails to disclose or even suggest rotating objects around a common rotational axis to different rotational angles. *Hanratty* discloses a method for generating a 3-D image of a solid from different 2-D views of the solid. Specifically, *Hanratty* derives a 3-D image of a solid from a 2-D top view, a 2-D view of each side, a 2-D bottom view, and a 2-D oblique view of the solid.

Hanratty describes rotating items in two situations: 1) rotating a working view and 2) rotating an active curve set (ACS). When *Hanratty* generates its 3-D solid from different 2-D views, it defines a working view, such as the front view. The other views therefore exist in different planes than the working view. When *Hanratty* is finished with working with a particular working view, *Hanratty* rotates the entire working view (e.g., 90 degrees on one of its edges) to position the working view to a correct 3-D orientation with respect to one of the other views. Thus, when *Hanratty* rotates its working view, it rotates the entire working view as a single multi-entity object around a rotational axis, which is defined as an edge of the working view. In an illustrative example, if the working view was originally facing east, after rotation the working view faces south. Therefore, the entire working view is rotated, not the individual entities of the working view, and the entire working view is rotated by a single rotational angle, not by different rotational angles. (See, e.g., *Hanratty* col. 33, line 44-col. 34, line 8).

Hanratty groups the various entities (e.g., curves) of its different views into closed curve sets, open curve sets, and disjoint curve sets. The curve set that *Hanratty* is currently manipulating is called an active curve set (ACS). The active curve set can be rotated out of the drawing plane to position the active curve set with respect to the developing base solid. Similar to the rotation of the working view, the entire active curve set is rotated as a single multi-entity object around a rotational axis. Therefore, the entire active curve set is rotated, not the individual curves of the active curve set, and the entire active curve set is rotated by a single rotational angle, not by different rotational angles. The Examiner argues that *Hanratty* rotates individual object by different rotational angles around a common axis, however, Applicant respectfully disagrees as discussed above. (See, e.g., *Hanratty*, col. 31, lines 51-59; col. 32, lines 45-53).

Therefore, unlike Applicant's claims 1, 9, 10, 18, 19, 27 and 28, *Hanratty* clearly fails to teach forming a 3-D rotational image that has a maximum rotational angle around a common rotational axis with each object in a first of layer having a minimum rotational angle and objects in layers other than the first layer having a rotational angle greater than the minimum rotational angle and less than or equal to the maximum rotational angle. Instead, *Hanratty* merely teaches rotating an entire working view or entire an active curve around a rotational axis by a single rotational angle. Further, whenever *Hanratty* rotates a working view or an active curve set, the rotational axis is different.

Accordingly, *Hanratty* fails to disclose or even suggest Applicant's independent claims 1, 9, 10, 18, 19, 27 and 28.

Claims 2, 4-8, 11, 13-17, 20 and 22-26 depend directly or indirectly from claims 1, 9, 10, 18, 19, 27 or 28 and are therefore allowable for at least the same reasons that claims 1, 9, 10, 18, 19, 27 and 28 are allowable.

Applicant respectfully submits the rejection has been overcome and requests that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claim 1-2, 4-11, 13-20, and 22-28 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

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